

REMARKS

In the Official Action dated October 22, 2004, Claims 6-17 were withdrawn as being directed to a non-elected invention. Also in the Official Action, Claims 1-5 were rejected under 35 U.S.C. §112 due to an informality in the Claims. Also, Claims 1-5 and 18-28 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 4,766,031 to Kohl.

In response to the Official Action, the Applicant affirms the election of Claims 1-5 and 18-28 for prosecution and the withdrawal of Claims 6-17 which are said to be distinct from Claims 1-5 and 18-28. Also, Claims 1 and 18 have been amended to correct obvious informalities and to more particularly point out the subject invention.

Claims 1 and 18 are directed to a composition having a polymer and glass fibers as more specifically set forth therein. The glass fibers are selected to have certain properties. It has been found that the selected properties result in an extruded product having certain physical properties, particularly a high modulus. In particular, Claims 1 and 18, as presently amended, are patentable over the cited references in that, among other reasons, they require glass fibers "having a fiber length in the range of 50 to 900 microns".

Kohl (C) is directed to a foam body of polyvinyl chloride that includes glass fibers. The foam body is produced by extruding a mixture that includes PVC powder and glass fiber chips. Kohl (C) teaches the use of glass fibers with various physical parameters, including fiber length in the range of 2,000 to 20,000 microns (2 to 20 mm). (Col. 3, lines 19-21). The selection of fibers in this range of length is said to be in accordance with the invention of Kohl (C). (Col. 3, lines 12-14).

Kohl (C) teaches away from using glass fibers of a shorter length than the specified range of 2,000-20,000 microns. For example, Kohl (C) states that a "high degree" of "comminuting" of the fibers is unacceptable. (Col. 2, lines 47-51). To the end of preventing breaking of the glass fibers, glass fiber chips are used to prevent breakdown of the fibers during the extrusion process. (Col. 4, lines 9-15). Kohl (C) further teaches that care must be taken to avoid the breakdown of the glass chips during the extrusion process. (Col. 4, lines 20-23).

In contrast to the teachings of Kohl (C), the subject application describes and claims a composition having glass fibers wherein the maximum fiber length is less than one-half of the minimum fiber length in Kohl (C). Claims 1 and 18 require glass fibers that have fiber length in the range of 50 to 900 microns. Surprisingly, it has been found that fiber length in the range of 50 to 900 microns affords preferred qualities of weathering, appearance, and strength in the extruded product. (Sutch Decl. ¶ 9; Pennington Decl ¶ 10). The prior art, such as Kohl (C), teaches the use of much longer fibers. For example, Kohl (C) teaches that the fibers are at least more than twice the maximum end of the Applicant's range of fiber length and, preferably, about nine times the length of the maximum end of Applicant's range. (Col. 3, lines 19-21). Glass fibers having a fiber length in the range taught by Kohl (C) were tested. (Sutch Decl. ¶ 8; Pennington Decl. ¶ 9). However, the test results were unsatisfactory and the extruded product did not have the desired properties. (Sutch Decl. ¶ 8; Pennington Decl. ¶ 9).

Nothing in Kohl (C) describes or suggests the use of glass fibers having a fiber length that is in Applicant's range. On the contrary, Kohl (C) teaches that the fiber length is substantially longer than Applicant's range. Moreover, Kohl (C) teaches the use of glass chips (as opposed to fibers) in the extruding process and to avoid unnecessary comminuting of the

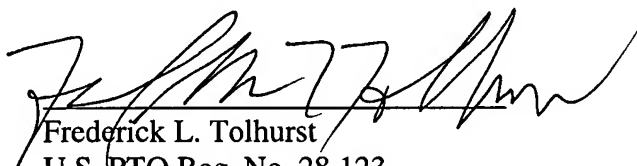
glass fibers during the extrusion process. At the time the invention was made, it would not have been obvious to the normally skilled artisan to select glass fibers having the short fiber length that is specified in Claims 1 and 18. (Sutch Decl. ¶¶ 11, 12; Pennington Decl. ¶¶ 12, 13). Accordingly, Claims 1 and 18 are patentable over Kohl (C).

Claims 2 -5 and 19-28 are dependent on Claims 1 and 18 respectively and incorporate all the limitations thereof. Accordingly, among other reasons, Claims 2-5 and 19-28 are patentable over Kohl (C) for the same reasons as stated for Claims 1 and 18. The other references that were cited in the Official Action but not specifically applied against the claims have been reviewed, but are not seen to make the subject invention unpatentable.

In accordance with the forgoing amendments to the Claims and in view of the above remarks, Claims 1-5 and 18-28 are considered to be in condition for allowance and such allowance is hereby respectfully requested.

Respectfully submitted,

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